

**CLAIMS**

What is claimed is:

1. In a display, said display substantially comprising a subpixel repeating group, said group further comprising at least one white subpixel and a plurality of colored subpixels, a method for rendering image data of a first color space onto said display of a second color space, the steps of said method comprising:

inputting image data to be rendered on said display;

converting said image data from said first color space to image data of said second color space;

subpixel rendering each individual color plane.

2. The method of Claim 1 wherein said first color space is one of a group, said group comprising: RGB, sRGB, and YCbCr.

3. The method of Claim 2 wherein said second color space is one of a group, said group comprising: RGBW, RGBW+L, RGBCW+L, RGBMW+L.

4. The method of Claim 1 wherein the step of subpixel rendering further comprises constructing filter kernels from area resampling.

5. The method of Claim 4 wherein said step of constructing filter kernels further comprises mapping luminance image data onto said white subpixels.

6. The method of Claim 4 wherein the step of subpixel rendering further comprises mapping the chrominance data onto said plurality of colored subpixels.

7. The method of Claim 6 wherein the step of mapping the chrominance data onto said plurality of colored subpixels further comprises shifting the phase of at least one color plane to interstitial positions of said colored subpixels.

8. The method of Claim 6 wherein the step of mapping the chrominance data onto said plurality of colored subpixels further comprises sharpening at least one color plane with luminance data.

9. The method of Claim 8 wherein the step of sharpening at least one color plane with luminance data further comprising sharpening with a difference of gaussian filter.

10. The method of Claim 6 wherein the step of mapping the chrominance data onto said plurality of colored subpixels further comprises cross-color sharpening said chrominance data.

11. The method of Claim 6 wherein the step of mapping the chrominance data onto said plurality of colored subpixels further comprises self-sharpening.

12. The method of Claim 5 wherein said step of mapping luminance image data onto said white subpixels comprises one of a group, said group comprising: tent filter, box filter, unity filter, box-cubic filter, tent-cubic filter.

13. The method of Claim 4 wherein the step of constructing filter kernels from area resampling further comprises finding a reduced set of filters according to reconstruction symmetries.

14. The method of Claim 13 wherein the step of find a reduced set of filters further comprises applying corrections for offset positions.